REMARKS

Claims 1-21 are pending in the present application.

At the outset, Applicants wish to thank Examiner Nguyen for the helpful and courteous discussion with their undersigned representative on August 3, 2004. During this discussion various amendments and arguments in traverse of the outstanding rejections were discussed. The content of this discussion is reflected in the following comments. Reconsideration of the outstanding rejections is requested.

The rejections of: (a) Claims 1, 4, and 6-7 under 35 U.S.C. §102(b) over Turk et al, and (b) Claims 1-2 and 4-7 under 35 U.S.C. §103(a) over Turk et al, is traversed.

The rejections over Turk et al are based on two assertions by the Examiner: (1) the products of Turk et al are made by the same process as the products of the present invention, and (2) that the products disclosed by Turk et al inherently possess the claimed properties. Applicants disagree with each of these assertions by the Examiner. To support the novelty of the present invention, Applicants **submit herewith** a Declaration under 37 C.F.R. §1.132 executed by Dr. Gottlieb Lindner (referred to hereinafter as "the Lindner Declaration").

First, in regard to the process disclosed by Turk et al, Applicants direct the Examiner's attention to paragraph 5 of the Lindner Declaration in which two specific reasons (shearing force and drying) are discussed as to why the process disclosed by Turk et al is distinct from the process of the present invention. For the Examiner's convenience, Applicants reproduce herein the discussion from paragraph 5 of the Lindner Declaration of the two fundamental differences between the processes in question:

a) Shearing force

The essential step of the process of Turk comprises the application of high shearing forces. As specifically disclosed at column 4, lines 19 – 25, Turk recites that his process comprises a step, "wherein during this process a shearing force is applied to the reaction mass, specifically during the alkaline phase of the precipitation reaction *by passing the reaction mass* in a continuous flow *through* a dispersing device and wherein the dispersing device is operated with an hourly throughput frequency from at least 10 h^{-1}.... ".

Therefore, the process disclosed by Turk requires an external – outside of the precipitation tank – shearing pump (see Fig. 3, Turk). Turk uses a dispersing pump, rotary pump, side-channel pump or a combination thereof as a shearing pump (see column 4, lines 47 - 54).

The influence of the shearing force to the process of Turk is described in column 5, lines 22 - 28 and column 6, lines 15 - 22 and especially in column. 10, lines 52 – 57, where Turk states "the requirement of obtaining high DBP number values (structure) *is in the first place use of a sufficient shearing force in the precipitation phase*" (column. 10, lines 54 - 57).

Turk also states in column 5, lines 59 - 62 that "all of the last-mentioned structure increase due to precipitation conditions are effective *only* if they are employed in combination with the previously discussed mechanical dispersing conditions".

Therefore, the essential aspect of the process of Turk is the application of *very high shearing forces during the precipitation.* Said very high shearing forces are mainly responsible for the high structure (DBP) of the silica of Turk.

To ensure the very high shearing forces the process of Turk requires the use of special equipment namely (external) dispersing pumps.

The process of the present invention differs from the process of Turk in that no respectively very low shearing forces (agitator) were employed during the precipitation step. As may be seen on page 5, lines 15 - 24 of the invention, where *no* shearing device was employed during the process of the present invention. Consequently, the silica of the invention cannot be identical to that of Turk (see Turk, column 5, lines 59 - 63).

b) Drying

The process of the invention comprises preferably spray drying (see Tables on page 7 and 9). Turk, however, teaches that spray dried silica show worse performance compared to the *fine* dispersion disclosed therein (see Turk, column 6, lines 45 - 48). Consequently, the process of Turk leads to more finely divided silica while the silica of the present invention are made by a process that leads to coarser products.

Further, to summarize the process parameters as discussed in paragraph 5 of the Lindner Declaration

- The process of Turk requires high (external) shear forces while the process of the present invention is preferably carried out without an external shearing device and without high shearing forces.
- The process of the invention comprises preferably a spray-drying step while Turk teaches that spray-dried products are disadvantageous.

Therefore, there is no expectation that the process disclosed by Turk et al would result in the products of the present invention. To this end, Applicants remind the Examiner that the burden of proving inherency lies on the Examiner: "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." (*Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)). Applicants note that the only justification given by the Examiner to support the inherency claim is the alleged identity between the process employed by Turk et al and the present invention. However, Applicants submit that the evidence provided in the Lindner Declaration as to the differences between the method disclosed by Turk et al and the present invention is sufficient to refute any allegation that the products of Turk et al inherently meet the limitations of the claimed invention.

Nonetheless, in paragraph 6 of the Lindner Declaration, Applicants report experiments conducted to show that the aforementioned differences between the methods disclosed by Turk et al and the present invention results in distinct products.

For the comparison tests in paragraph 6 of the Lindner Declaration, Applicants selected two silicas disclosed in the present invention to be used in the method disclosed in Example 26 of Turk et al and compared the choline chloride absorption of the silica of Turk et al with the silica of the present invention.

In comparison Example 1, silica No. 5 (TV 7397) of the invention (see Tables on page 9 and 10) was employed. In comparison Example 2, a silica named EXP 118888 was tested. EXP 118888 was manufactured according to the process of the invention at alkaline number 28, in batch scale.

The results of the tests are enclosed in the following Table:

Silica	**DBP**	**consumption of 70% aq. sol. of choline chloride**
Example 1 of Turk (Turk, col. 20, line 19)	284 ml/100 g	43.4 ml
Example 22 of Turk (Turk, col. 20, line 25)	?	48.2 ml
TV 7397 (Ex. 5 of the invention)	247 g/100 g =237 ml/100 g*	52 ml
EXP 118888	300 g/100 g =287 ml/100 g*	59 ml

*) recalculated usual density 1.043 g/cm^3 for DBP

As evidenced by the Table above the choline chloride absorption of TV 7397 is about 22 % larger than that of Ex. 1 of Turk et al and 7.9 % larger than that of Ex. 22 of Turk et al. This is an enormous improvement especially because the silica of Ex. 1 of Turk et al exhibits a DBP of 284 ml/100 g (Table 1 of Turk et al) while TV 7397 exhibits a DBP of 247 g/100 g = 237 ml/100 g (see Table on page 10 of the invention). Therefore, even though TV 7397 has a lower DBP absorption, it has a 22% higher choline chloride absorption compared to Example 1 of Turk et al.

More specifically, TV 7397 exhibits a DBP/choline chloride-ratio (DBP/CC-ratio) of 1.0601 (see Table on page 10 of the description). TV 7397 is therefore, with respect to the DBP/CC-ratio, the worst Example of all Examples of the present invention. Consequently, the present inventors compared the worst Example of the invention with the silica of Turk et al. Nevertheless, the silica of Turk et al exhibit 22% and 7.9% less choline chloride absorption, respectively, than the worst silica of the invention (TV 7397).

The choline chloride absorption stands in the denominator of the DBP/CC-ratio. Consequently a lower choline chloride absorption results by force in a higher DBP/CC-ratio. TV 7397 (the worst Example of the invention) has a DBP/CC-ratio of 1.0601. The scope of

the DBP/CC-ratio in Claim 1 of the present invention is < 1.07 which is very close to the value of TV 7397.

However, according to the comparison experiments above, the silica of Example 1 of Turk et al exhibits a choline chloride absorption 22% lower than that of TV 7397. Thus the DBP/CC-ratio must be 22% higher, *i. e.* the DBP/CC-ratio of the silica of Example 1 of Turk et al is about 1.29 (1.0601 x 122%). The choline chloride absorption of Example 22 of Turk et al is 7.9% lower compared to TV 7397. Thus the DBP/CC-ratio must be 7.9% higher, *i. e.* the DBP/CC-ratio of the silica of Example 22 of Turk et al is about 1.13 (1.0601 x 107.9%). Therefore, the present experiments clearly demonstrate that the silica disclosed by Turk et al exhibit a DBP/CC-ratio far outside of the scope of Claim 1 of the present invention (see paragraph 6 of the Lindner Declaration). For the Examiner's convenience, these results are summarized in the Table below (reproduced from paragraph 6 of the Lindner Declaration):

Silica	CC-absorption determined according to Example 26 of Turk	Difference to TV 7397	DBP/CC-ration calculated as follows: (DBP/CC-ratio of TV 7397) × (Diff. Of CC-absorption in %)
Example 1 of Turk	43.4 ml	22%	1.2933 (calculated)
Example 22 of Turk	48.2 ml	7.9%	1.1438 (calculated)
TV 7397 (Ex. 5 of present invention	52 ml	--	1.0601 (see page 19 of present application)

The results set forth herein constitute an unexpected modification in the process of Turk et al in that the improved process resulted in silicas that show a much better

performance as absorbers and carriers. Moreover, these results demonstrate that the products of Turk et al do not inherently meet the limitations of the claimed invention.

In view of the foregoing and the Lindner Declaration **enclosed herewith**, Applicants submit that the present invention is neither anticipated by nor obvious in view of the disclosure of Turk et al. Accordingly, Applicants request withdrawal of these grounds of rejection.

The rejection of Claim 2 under 35 U.S.C. §112, second paragraph, is obviated by amendment.

Claim 2 has been amended to specify that that the electrolyte is a component of the silicate. This amendment is consistent with the specification on page 3, which indicates that the electrolytes, in particular sodium, may be incorporated into silicate agglomerates.

In view of the present amendment, Applicants request withdrawal of this ground of rejection.

Accordingly, Applicants submit that the present application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

Vincent K. Shier, Ph.D.
Registration No. 50,552

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413-2220
(OSMMN 08/03)